

## CLAIMS

1. An ultrasonic diagnostic apparatus, comprising:  
a sound velocity calculation means for calculating the  
5 sound velocity of ultrasonic waves based on the difference  
between the reflex time of ultrasonic wave reflected from  
the inner surface of a window in contact with a test subject  
and the reflex time of ultrasonic wave reflected from the  
outer surface of the window and the thickness of the window;  
10 a temperature calculation means for calculating the  
temperature of the window based on sound velocity calculated  
by the sound velocity calculation means; and  
an ultrasonic wave output control means for controlling  
ultrasonic wave output based on temperature calculated by  
15 the temperature calculation means.

2. An ultrasonic diagnostic apparatus, comprising:  
a sound velocity calculation means for calculating the  
sound velocity of ultrasonic waves based on the reflex time  
20 of ultrasonic wave passing through fluid wherein sonic  
elements vibrate and reflected from the inner surface of a  
window in contact with a test subject and the thickness of  
the fluid;  
a temperature calculation means for calculating the  
25 temperature of the fluid based on the sound velocity

calculated by the sound velocity calculation means; and  
an ultrasonic wave output control means for controlling  
ultrasonic wave output based on temperature calculated by  
the temperature calculation means.

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3. The ultrasonic diagnostic apparatus according to claim  
1 or 2, further comprising:

a memory means for storing the thickness of said window  
and the thickness of said fluid obtained by detecting said  
10 reflex times of ultrasonic waves under a certain temperature  
beforehand and performing calibrations respectively, for the  
window and the fluid; and, wherein

said sound velocity calculation means calculates the  
sound velocity of ultrasonic waves based on the thickness  
15 of the window or the thickness of the fluid stored by the  
memory means.